19980905.ba v02_n203.bam.980905

>From ???@??? Sun Sep 06 02:51:59 1998
Message-Id: <199809060154.UAA29621@sco.theporch.com>
Date: Sat, 5 Sep 1998 20:52:19 CDT
Subject: BOATANCHORS digest 2203

BOATANCHORS Digest 2203

Topics covered in this issue include:

1) 516F-2 Relay a/c relay mod
by "ROBERT F. KEMP" <rkemp@mr.net>
2) HP 410B probe troubleshooting
by "N. West" <ninaw@u.washington.edu>
3) Generator Seats
by PLT1032@aol.com
4) FT: HW16 & HG-10B
by kf4kl@ipass.net (Doug Hall)
5) You take the High[bander]...
by mnhopkins@juno.com (Michael N Hopkins)
6) Help id tube
by "JOSE V. GAVILA (EB5AGV/EC5AAU)" <eb5agv@ctv.es>
7) Re: Help with SP-600 info
by greg anders <kg6yv@mindspring.com>
8) Shipping to Canada
by David Stinson <arc5@ix.netcom.com>
9) Tube riot, lot 2, more plans, etc...
by William Donzelli <william@ans.net>
10) ADMINISTRIVIA: Using The Archives
by listown@jackatak.theporch.com (Mail List Owner)
11) Re: Help id tube
by ail0@lehigh.edu (ARTHUR I. LARKY)
12) need some valves for my HW-101
by zeitler@ibm.net
13) Re: Tube riot, lot 2, more plans, etc...
by William Donzelli <william@ans.net>
14) Re: Help id tube
by ail0@lehigh.edu (ARTHUR I. LARKY)
15) Re: Help id tube
by William Donzelli <william@ans.net>
16) Re: Weird Tubes
by William Donzelli <william@ans.net>
17) Any AN/FRT-15 owner's out there?
by Jack Antonio <dia@dia.reno.nv.us>
18) RE: Shipping to Canada
by Ed Sieb <esieb@gmsiworld.com>
19) WTD--CE slicer A or B

by Bob Login <jlogin@gville.mindspring.com>
20) FS Tube Tester
by George T Folse III <kb5wwo@bellsouth.net>
21) Dallas Sidewalk Sale Buy
by Spencer Petri <spetri@e-tex.com>
22) RCA 807 vs Svetlleana 807
by David Stinson <arc5@ix.netcom.com>
23) RE: GB> How much drive should a driver drive... (long)
by "David Newkirk" <dpnewkirk@home.com>

Message-ID: <37D1C13F.7443@mr.net>
Date: Sat, 04 Sep 1999 18:02:55 -0700
From: "ROBERT F. KEMP" <rkemp@mr.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: 516F-2 Relay a/c relay mod
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I'm wondering who I could get ahold of to do that a/c relay mod for me on my 516F-2. Harry Kaklikian is no longer with us and he did 2 for me and I have one more to do. Please let me know.
Thanks.

Date: Fri, 4 Sep 1998 16:38:13 -0700 (PDT)
From: "N. West" <ninaw@u.washington.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: HP 410B probe troubleshooting
Message-ID: <Pine.A41.3.96a.980904160946.92768B-100000@dante04.u.washington.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I recently received an EA53 diode for my HP410B voltmeter from a list member, but have been having trouble getting it going. The DC functions are working. With the AC probe dissassembled, no diode installed, I can hookup a 9 volt battery to the exposed AC probe contacts and measure 3.6 volts which seems a little low for a peak sensing, RMS calibrated scale. When I install the diode and adjust its filament to 6.3v I get a warm glow from inside, but cannot get any indication when I hook it up to an HP 200CD oscillator running at 30 volts. I measured a negative DC voltage of .15 volts from the anode to the cathode, (thermal emission of electrons from cathode) which I had expected from the manual to run around 1 volt negative. The measurements were taken with a Simpson VOM because I was getting wild readings from my HP 412 voltmeter.

Can anyone suggest a possible fault and correction for this problem?

Also, does anyone have the tip and contact spring peculiar to the EA53 (P/N 410B-21P)? I am presently using a spring from a ball point pen.
Thanks,
Fred Powell
c/o
ninaw@u.washington.edu

From: PLT1032@aol.com
Message-ID: <3f1ed59e.35f09c5a@aol.com>
Date: Fri, 4 Sep 1998 22:05:14 EDT
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: Generator Seats
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

U.S. made LG-2-B, mfg 1975, 6 ea. sealed in original box as new, $10 plus postage

Bob

From: kf4kl@ipass.net (Doug Hall)
To: Old Tube Radios <boatanchors@theporch.com>
Subject: FT: HW16 & HG-10B
Date: Sat, 05 Sep 1998 02:26:30 GMT
Message-ID: <35f088ba.341536162@DOUGHALL>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: quoted-printable

Hi folks,

I have a Heath HW-16 transceiver and a matching HG-10B VFO that I'd like to swap for something else. The radio receives and transmits, but has a loud hum in the receive audio (needs a couple of new electrolytics in the power supply section.) The VFO works. The previous owner replaced the RCA phono jack for the VFO connection with an SO-239, and also replaced the antenna jack with an SO-239, but other than that I can't see any mods. Both units could stand the usual cleanup, but it wouldn't take much effort to make a very nice HW-16 setup. The VFO has a scratch on the front panel, but nothing major, and could be easily touched up. I can send JPG files of the HW-16 and VFO if you're really interested. I have an HG-10B manual copy, but no manual for the HW-16. They're available from the usual places.

I'd rather swap for something than sell the stuff, and will swap +/- cash depending on what you've got. Here are some things I'm interested in:

Hammarlund HQ-110 or HQ-170
Drake Antenna Tuner that would match my C-Line
Vibroplex or other bug
Heath HR-10B (have one, but would like a really clean one)
Heath SB-301 or SB-303
Kenwood MC-85 microphone
LF converter for Drake 2B
General Radio 1606A
Other interesting stuff - whatcha got?

If you're interested drop me a note.
73,
Doug, KF4KL
kf4kl@ipass.net

To: Old Tube Radios <boatanchors@theporch.com>
Date: Sat, 5 Sep 1998 00:19:00 -0700
Subject: You take the High[bander]...
Message-ID: <19980905.021212.-80635.0.MNHopkins@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit
From: mnhopkins@juno.com (Michael N Hopkins)

What would you say if you could duplicate your WRL VHF-62 "Highbander's" wandering, Heisinged signal on 40 and 80 Meters? What would the FCC say?

Well, friends, had you been alert in December, 1962, you could have done just that. Yep, you could have ordered the boards and constructed a Irving Lowverter, a three-tube affair that down convertered a VHF signal to the DC bands using a 6CL6, a 5763 and, you guessed it, a 6146.

It says here in the Circuit Board, a technical supplemenmt to the Monitor publication, that Irving S. Seligmann would sell you the boards 92A-C for just $9 out of San Antonio , and you could steal the power from the 'Bander. Pretty neat, I guess. Seems like Irving also offered something called a "Perverter," but I never knew what that was. I was afraid to ask.

73 de ab5L, michael in Dallas, student of Six Meters' Golden Age,
1957-58,
and two of its jewels: Tecraft and International Crystal ham products.
Michael N. Hopkins
Box 226841
Dallas, TX 75222   MNHopkins@Juno.com

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Get completely free e-mail from Juno at http://www.juno.com
Or call Juno at (800) 654-JUNO [654-5866]

Message-Id: <3.0.1.32.19980905123637.007b3100@pop.ctv.es>
Date: Sat, 05 Sep 1998 12:36:37 +0200
To: Old Tube Radios <boatanchors@theporch.com>
From: "JOSE V. GAVILA (EB5AGV/EC5AAU)" <eb5agv@ctv.es>
Subject: Help id tube
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hello gang!

I have just received a nice box with 64 NIB tubes: about 15 each of 6BQ5, 12BY7A, 6BH6, 6AH6, usual (and useful :-) !) tubes, but also two very curious tubes, each one inside a military cardboard cylinder. They are 2K25 / CV2762 metal tubes, _near_ octal base (I say 'near' because there is a wire instead of one of the octal pins!) and a curious dual metal plate from the base to the top, with an screw in the middle of them. It seems to me as a variable capacitor assembly... They have also a metal cap at the top (plate cap?).

I have no clue of the use of this tube (any 'Tube Lore' book I could buy?), and have never seen a similar one before... Any help of its use?.

Thanks!

Best regards.

JOSE

----

73 EB5AGV / EC5AAU
JOSE V. GAVILA
Ausias March 46, 15
46910 Benetusser - VALENCIA
SPAIN

** VISIT MY VINTAGE RADIO SITE - updated 28-August-1998 ***
http://www.geocities.com/SiliconValley/6992/
e-mail: eb5agv@ctv.es & eb5agv@amsat.org

Message-Id: <3.0.1.32.19980905072128.007ad100@pop.mindspring.com>
Date: Sat, 05 Sep 1998 07:21:28 -0700
To: Old Tube Radios <boatanchors@theporch.com>

From: greg anders <kg6yv@mindspring.com>
Subject: Re: Help with SP-600 info
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

>>>>>>I have an Sp-600MX with a Northern Radio tag and a data sheet from Mr. Hammarlund (Robert Fowle) indicating that Northern was in the modern lingo a "systems integrator" for a Navy contract that called for diversity SP-600s in a 6 ft. rack. This Sp-600 has no crystal facility and the name plate is mounted where the crystal osc. switch is on my other SP-600s. I'll try to dige out the data sheet and provide more info. if I can but I don't think there's much else on it other than the ubiquitous link to an FRR XXX number.

Greg Anders

At 10:19 PM 8/30/98 -0700, Jim Carrington wrote:
>Hi folks,
>I also have one of these Type 159 Northern Radio SP-600's but also have no
>documentation on it. If anyone has info on this rig , please copy me as
>well.
>   Thanks
>   Jim Carrington
>
>----------
>> From: JOSE V. GAVILA (EB5AGV/EC5AAU) <eb5agv@ctv.es>
>> To: Old Tube Radios <boatanchors@theporch.com>
>> Subject: Help with SP-600 info
>> Date: Sunday, August 30, 1998 1:08 PM
>>
>> Hi gang,
>>
>> I have received this message and can't be of help. Please, if you have
>any
>> information about that 'special' SP-600 unit, I'll be happy to forward it
>> to Tom.
>>
>> Thanks a lot!.
>>
>> Best regards.
>>
>> JOSE
>>
>> ---

>> >Jose,
>> >
>> > I have an SP-600 that I recently decided to try to get working. I have
>a
>> >schematic but it does not reflect this particular unit. I am looking for
>> >some info on it's history and where to get the necessary documentation
>for
>> >it.
>> >
>> > It is a model SP-600 JX-6. It has the fixed frequency crystals and
>> >switches removed and the holes in the front panel where the switches
>went
>> >are coverd by a tag that reads:
>> >
>> > Northern Radio Company
>> > Communications Receiver
>> > Type 159   Model 1 S/N 68
>> > Volts 115 Phase 1 Cycles 50/60
>> >
>> > I have not been able to locate any info that can help me identify this
>> >unit. If you know anything about it, please let me know! Thanks.
>> >
>> > Tom W3TA
>> >
>>
>
>

Message-ID: <35F148E4.5CA6@ix.netcom.com>
Date: Sat, 05 Sep 1998 09:21:24 -0500
From: David Stinson <arc5@ix.netcom.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Shipping to Canada
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

About a year ago, I was searching for alternatives for
shipping large packages to Canada. I kind gentleman
wanted a BC-375. No matter how we looked at it,
the shipping was going to cost as much or more then
the transmitter. Never did find a good alternative.

Now I'm holding some WW-II avionics I want to donate
to a Canadian restoration group and
am faced with the same problem--
High shipping costs that make the donation impractical.

I'm not the first one to run into this. Has anyone on the list found a good way to send large packages to Canada? Is there perhaps someone living on the Canadian-US boarder who can act as a receiver so Canadian BA folks can come pick up things? There's got to be a way around this.

73 DE Dave Stinson AB5S
arc5@ix.netcom.com

Date: Sat, 5 Sep 1998 10:31:01 -0400 (EDT)
From: William Donzelli <william@ans.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Tube riot, lot 2, more plans, etc...
Message-Id: <Pine.GSO.3.96.980905101729.2805A-100000@titan.purch.ans.net>
Mime-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

OK, to start things off, here is lot 2:

(14)	1X2B
(40)	6AH6
(5)	6C4W
(15)	6C4WA
(6)	5670
(36)	5678
(9)	5725/6AS6W
(8)	5749/6BA6W
(8)	5751
(13)	6005/6AQ5W

Same deal - all are NIB 1950-60s military surplus.

Also, thank you for all that submitted comments. All were positive! The concensus is that splitting the lots up amongst a few people is the best way to go. I plan on doing this, picking eight people out (because I have eight boxes) and trying to fit their needs. Maybe this will be a bit like the Rules of Ware. Anyway, all of these tubes are _cheap_, so don't complain (someone pointed out why everyone wants the 26Z5Ws - I suppose I could have auctioned them off. Oh well)!

Anyway, lets give a few more days, as I imagine a few of us are on vacation.

Oh, now I know why large amounts of tubes _should_ be sold by the bucket!

William Donzelli
william@ans.net

Message-Id: <199809051615.LAA19508@jackatak.theporch.com>
From: listown@jackatak.theporch.com (Mail List Owner)
To: Old Tube Radios <boatanchors@theporch.com>
Subject: ADMINISTRIVIA: Using The Archives
Date: Sat, 5 Sep 98 11:15:01 CDT

Gang-

This periodic posting is intended as a gentle nudge and suggestion which should improve the quality of posts to the BoatAnchors list, and maintain our excellent (and high) signal to noise ratio...

The list culture has developed to include "for sale" and "wanted" posts. Originally, all buying and selling traffic was focused on finding parts to complete a restoration. As the list has evolved, there has been an increase in buying and selling activity, which may not be all bad.

There is, however, a real need to observe certain conventions, lest this otherwise benign activity turn into a real disturbance to the real purpose of the list: discussions of radio equipment using vaccuum tubes, including the life and times of the designers and users of such gear.

Please observe these guidelines:
1) LIMIT the frequency of for sale postings... once a month is a good starting point

2) DO NOT post endless "xxx is sold" to the entire list... you offered it for sale, and it is not considerate of list resources (which include the time and energy of the other list members) to burden the list with these senseless notices. Use direct email to those who responded, or, if you don't want to answer them personally, just don't use the list to advertise them for sale!

3) AVOID even the mere faint appearance that you are posting items for sale as a regular adjunct to your business dealings. This has become more of a problem lately with some long lists showing up regularly on the main list, or with dealers who appear to be using the list for their personal advertising advantage. Failure to observe these basics *will* result in banishment from the list -- just don't do it! When even a shadow of doubt creeps in, read the "Welcome" message again... it spells it out!

4) DO be considerate of those on the list in your for sale or wanted postings. Keep them short, infrequent, and ONLY include items specifically appropriate to the list -- NO solid state gear is obvious, but try to avoid pushing the envelope in any area.

5) LONG lists and estate offerings should be sent to me at:
listown@jackatak.theporch.com
so they may be uploaded to the archives for email or ftp retrieval.
(We are hoping to have a web page up in the future for these files.)

Thanks for your understanding and help in making the boatanchors list have the highest signal to noise on the InterNet.

--
73
Jack, W4KH/Mobile - - - BoatAnchor Mailing List Owner - - -
listown@jackatak.theporch.com - "Plus ca change, plus c'est la meme chose"
"Il n'y a que les idiots qui ne changent jamais d'idee"
Tue Sep 1 11:15:01 CDT 1998
Sat Sep 5 11:15:01 CDT 1998

Message-Id: <199809051613.MAA46204@ns3-1.CC.Lehigh.EDU>
Date: Sat, 05 Sep 1998 12:13:13 EDT
From: ail0@lehigh.edu (ARTHUR I. LARKY)
Subject: Re: Help id tube
To: Old Tube Radios <boatanchors@theporch.com>
Cc: eb5agv@ctv.es

JOSE wrote:

>I have just received a nice box with 64 NIB tubes: about 15 each of 6BQ5,
>12BY7A, 6BH6, 6AH6, usual (and useful :-) !) tubes, but also two very
>curious tubes, each one inside a military cardboard cylinder. They are 2K25
>/ CV2762 metal tubes, _near_ octal base (I say 'near' because there is a
>wire instead of one of the octal pins!) and a curious dual metal plate from
>the base to the top, with an screw in the middle of them. It seems to me as
>a variable capacitor assembly... They have also a metal cap at the top
>(plate cap?).

Sounds to me like a Klystron tube. Does the little wire look like a piece of miniature coax? A Klystron is a microwave oscillator tube; the screw varies the size of the cavity to tune it. I think I have one or two around somewhere.

Art K3HBA

From: zeitler@ibm.net
Message-ID: <004f01bdd900$f1c52b20$7d292581@km3g>

To: Old Tube Radios <boatanchors@theporch.com>
Subject: need some valves for my HW-101
Date: Sat, 5 Sep 1998 12:11:05 -0700
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Fellow Valve Users,
In order to get my beloved Hot Water 101 fully up to snuff I am in need of the following tubes:

(3) 6EA8
(2) 6HS6
(2) 6CB6
(2) 12AT7
(2) 6GW8
(2) 6BN8

Any help greatly appreciated.

Lane
KM3G
San Diego

Date: Sat, 5 Sep 1998 15:53:18 -0400 (EDT)
From: William Donzelli <william@ans.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Tube riot, lot 2, more plans, etc...
Message-Id: <Pine.GSO.3.96.980905155022.7489A-100000@titan.purch.ans.net>
Mime-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

A few people have wondered about purchasing the whole lot, or have not specified what tubes they want. I am going to create eight lots for the eight winners, and will try to fill each's order nicely, but if I do not know what tubes you are interested in, I will have problems!

So, if you have not specified what types you want, please do so.

William Donzelli
william@ans.net

Message-Id: <199809051950.PAA19340@ns3-1.CC.Lehigh.EDU>
Date: Sat, 05 Sep 1998 15:50:23 EDT

From: ail0@lehigh.edu (ARTHUR I. LARKY)
Subject: Re: Help id tube
To: Old Tube Radios <boatanchors@theporch.com>

Jose:
I've looked it up in my 1953 ARRL handbook - it IS a klystron. Specs are:
8702-9548 Mhz., 300 v., 32 ma. beam current, -130/-185 reflector volts,
cathode current 25 ma max, 0.033 watts output,. Chapter 19 has some brief
information about it. The handbook lists 2 dozen other types.
Art K3HBA

>JOSE wrote:
>
>>I have just received a nice box with 64 NIB tubes: about 15 each of 6BQ5,
>>12BY7A, 6BH6, 6AH6, usual (and useful :-) !) tubes, but also two very
>>curious tubes, each one inside a military cardboard cylinder. They are 2K25
>>/ CV2762 metal tubes, _near_ octal base (I say 'near' because there is a
>>wire instead of one of the octal pins!) and a curious dual metal plate from
>>the base to the top, with an screw in the middle of them. It seems to me as
>>a variable capacitor assembly... They have also a metal cap at the top
>>(plate cap?).
>
>Sounds to me like a Klystron tube. Does the little wire look like a piece of
>miniature coax? A Klystron is a microwave oscillator tube; the screw varies
>the size of the cavity to tune it. I think I have one or two around somewhere.
>
>Art K3HBA
>

Date: Sat, 5 Sep 1998 16:08:19 -0400 (EDT)
From: William Donzelli <william@ans.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Help id tube
Message-Id: <Pine.GSO.3.96.980905160755.7489D-100000@titan.purch.ans.net>
Mime-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

> I have just received a nice box with 64 NIB tubes: about 15 each of 6BQ5,
> 12BY7A, 6BH6, 6AH6, usual (and useful :-) !) tubes, but also two very
> curious tubes, each one inside a military cardboard cylinder. They are 2K25
> / CV2762 metal tubes, _near_ octal base (I say 'near' because there is a
> wire instead of one of the octal pins!) and a curious dual metal plate from
> the base to the top, with an screw in the middle of them. It seems to me as
> a variable capacitor assembly... They have also a metal cap at the top
> (plate cap?).

This is a klystron - in fact it might be suitable to call it THE klystron, as it is one of the classic tube designs. It came from the Western Electric labs as the 723A (and B) - the 2K25 number is the industry standard. It is an X-band device, and turning that odd bit on the side actually moves the elements of the tube, tuning it. It was a favorite local oscillator in a huge number of radar sets, from airborne to shipboard types, well into the 1950s.

William Donzelli
william@ans.net

Date: Sat, 5 Sep 1998 16:10:14 -0400 (EDT)
From: William Donzelli <william@ans.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Weird Tubes
Message-Id: <Pine.GSO.3.96.980905160852.7489E-100000@titan.purch.ans.net>
Mime-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

> #2 Air Force Military-packed tube. Aug 1958.
> Type RCA 5693
> This is a metal octal shaped like a 6SK7,
> but is painted bright red. I've seen
> several of these over the years.
> Anyone know the why/what of these?

High-rel types, often found in larger radar sets from the 1950s. I have some Nike bits that have them.

William Donzelli
william@ans.net

Message-ID: <35F1AF1B.1415@dia.reno.nv.us>
Date: Sat, 05 Sep 1998 14:37:31 -0700
From: Jack Antonio <dia@dia.reno.nv.us>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Any AN/FRT-15 owner's out there?
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I have the O-142 module out of an FRT-15 transmitter. Since I have no use for it other than for the parts it contains, I thought I would offer it to anyone needing one for their FRT-15.

If I had to guess, I would say its really not an oscillator at all, but a series of 12AU7 multivibrators used as frequency dividers.

Untested, missing all tubes and the plug in electrolytics, but
no obvious damage.

Free + postage from Reno, NV 89507.

73

Jack Antonio WA7DIA
dia@dia.reno.nv.us

Message-ID: <01BDD8F4.FE7A7520@esieb.gmsiworld.com>
From: Ed Sieb <esieb@gmsiworld.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Shipping to Canada
Date: Sat, 5 Sep 1998 17:45:33 -0400
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

Well, the first thing is _NOT_ to use UPS. UPS adds unnecessary charges to all
cross-border shipments.
At work, we use FedEx, which we have found very satisfactory - if you have all
your customs paperwork properly
prepared. The only problem with FedEx is that they're very costly.

The only remaining alternative is either Air Parcel Post, properly insured, or
Express Mail. In other words,
the governments' mail system.

I too have had to resort to a third-party holding an item until I or someone else
can fetch it and bring it up.

Dave, where is this package going? I travel to the US very often and to various
cities (I'm in Orlando this week,
and Manhattan in two weeks).

Ed, VA3ES

Message-Id: <199809052155.RAA15787@dewdrop2.mindspring.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Date: Sat, 05 Sep 1998 17:46:55 -0400
To: Old Tube Radios <boatanchors@theporch.com>
From: Bob Login <jlogin@gville.mindspring.com>

Subject: WTD--CE slicer A or B

Wanted sideband slicer model A or B. If u hve one for sale please let me knw condx & price. Tnx Bob, AA8A

Message-ID: <35F1D4F6.604B@bellsouth.net>
Date: Sat, 05 Sep 1998 19:19:02 -0500
From: George T Folse III <kb5wwo@bellsouth.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: FS Tube Tester
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

All,
  I have a Weston Electric model OQ-3 Navy tube tester FS. Serial# 207
It is all intact with the cables and manual. I would rate it at a 7,the cabinet needs refinishing. There was an artical in Antique Radio Classified sometimes last year on this tester. Weight is 35lb.
Make offer.
George KB5WWO

Date: Sat, 5 Sep 1998 20:19:30 -0500 (CDT)
Message-Id: <199809060119.UAA29256@sco.theporch.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
To: Old Tube Radios <boatanchors@theporch.com>
From: Spencer Petri <spetri@e-tex.com>
Subject: Dallas Sidewalk Sale Buy

Greetings,

Made the mad rush up to Dallas Saturday morning. Met AB5L in person. Came back with an interesting item. The device is a VHF-UHF Portable Field Strength Meter made by The Radion Corp., Chicago. It is continiously tunable from channel two to chanel 82 and is essentially a five tube superhetrodyne. Anybody ever heard of the company? Anybody got any info on the instrument. It came with schematic and some correspondence dated 1957 and 1958.

The meter is calibrated in microvolts in two scales, high and low sensitivity corresponding to the knob selection. Hi Sens VHF 0-25 uv, Low Sens 0-50Kuv. Hi Sens UHF 0-450 uv, Low Sens 0-100Kuv. It has two seperate antenna inputs also.

Originally used three 45 VDC batts in series and two 1.5 VDC batts in series. Looks like it'll run off of a PS from an old Motorola "Dispatcher" (handcarried) and a 6 VDC rechargeable batt.

Any info appreciated. It ought to really impress the electric co. personnel if they come out on a "line noise" problem, hee, hee, hee.

Also got about twenty pounds of loose resistors and chokes for five bucks, but that's another story.

Hopefully TIA,
73 de Pete WA5JCI EM21   "the future will be better tomorrow"
....
6 Mtr -- WAS #490, WAC CW, DXCC/91 Countries, VUCC #361
....
2 Mtr -- 36 States -- VUCC #346

Message-ID: <35F1E7FC.1B84@ix.netcom.com>
Date: Sat, 05 Sep 1998 20:40:12 -0500
From: David Stinson <arc5@ix.netcom.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RCA 807 vs Svetlleana 807
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I've been testing my CW rig using both the RCA 807 and the Svetleana 807.

The CW note with the RCA definately has less low-range warmth and mid-range rintintintabulation, while the Svetleana 807 gives the note slightly excess brilliance in knee-over quarterbend conduction. Also, the galvanic response drop-time looks grid-leaked in the Svetleana.
Has anyone tested them triode-connected for total harmonic implosion? I made sure to use a 5AR4G rectifier because it delivers more joules per kilogoober of electrolysis.

73 DE Dave Stinson AB5S
arc5@ix.netcom.com

From: "David Newkirk" <dpnewkirk@home.com>
To: Old Tube Radios <boatanchors@theporch.com>

Cc: "BoatAnchor List" <boatanchors@theporch.com>
Subject: RE: GB> How much drive should a driver drive... (long)
Date: Sat, 5 Sep 1998 21:51:53 -0400
Message-ID: <000001bdd938$ebf156a0$33940318@cc632587-a.vron1.nj.home.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Mike, KK6GM, wrote:

> I saw an interesting article on r.r.a.homebrew in the one-tube transmitter thread. The poster claimed that he built a transmitter with a 12AT7 driving a 6L6, and was getting 27 Watts out. What intrigued me was the notion of the itty-bitty 12AT7 producing enough drive to drive a 6L6 to full output, especially with the stuff I've read here and in ER about the difficulty providing adequate drive for a 6L6 from an untuned 6AG7 oscillator.
>

[calculation of 6L6 drive voltage deleted]

> Now the question is, what makes it so difficult to produce 180 Volts of signal from an untuned oscillator running at 300 or more Volts? Is it simply an inability to get a reasonable plate impedance from a choke?

Because a Class C stage's grid conducts when driven positive, driving a tube into Class C doesn't take just voltage, it takes *power*, and not just voltage times current, but *real* power, in which voltage and current are in phase. Because voltage and current will be in phase only in the resistive part of an impedance, an oscillator's load impedance must be purely (or at least mainly) resistive for the oscillator to develop all or most of the power output of which it's capable.

The presence of considerable "to ground" capacitance in the oscillator plate/amplifier grid circuit makes this problematic. An RF choke used as an oscillator load resonates with this capacitance somewhere far below the operating frequency; a parallel tuned circuit far above its resonance looks like a capacitor. A resistor used as an oscillator load is shunted by this capacitance; the net result is is that it looks like a capacitor. So what we must do is "tune out" the to-ground capacitance by parallelling it with an inductor of equal reactance. The result, at resonance, is a pure, reasonably high resistance--just what our oscillator needs as a resistive load in which to develop the real power needed to drive the amplifier into Class C.

Side conundrum: Attempting to tune the plate circuit of a Pierce oscillator to resonance with its crystal stops the circuit's oscillation because *the Pierce requires a capacitive plate-cathode load to work.* Making the Pierce's plate-cathode load resistive by attempting to tune it to achieve more power output upsets the 180-degree grid-plate phase relationship necessary for oscillation. This is why we can get only negligible power out of a Pierce: We *can't* tune it to get appreciably more output. Sure, whatever that "negligible" power is, we can increase it by running the Pierce at higher power, but when we start to hear the keyed note yoop -- change frequency slowly throughout a Morse word, or through a long dash -- we know we're past the power limit that crystal can tolerate. (The yoop occurs mainly as a result of crystal heating; capacitance shift in the tube[s] involved is a distinctly secondary cause.) 300 V on a triode oscillator can be dangerous even for pre-WWII crystals; should the oscillator load somehow become disconnected or greatly reduced through tuning, the sudden availability of all of the oscillator's output for self-drive will likely fracture the crystal.

So much for why an "untuned" oscillator can't develop much power, and why the output of a Pierce can't be tuned to resonance with the crystal. Now, what about a 12AT7 driving a 6L6 to 27 W output? I see from my TT-5 RCA Transmitting Tube manual that the 1614 (a 6L6 updated and characterized for RF service) needs approximately 0.1 to 0.15 W of drive for output powers in the 20-watt class. (That's essentially what you came up with -- good going.) On pages 407 and 408 of the 1954 ARRL Handbook there's a 220-Mc. transmitter that uses a push-pull 12AT7 final to develop 2 watts. Even considering the rule of thumb that a driver stage should be designed to provide at least twice the driving power required (the reason for this is that we usually don't take the pains necessary to make the driven grid look much like the load necessary to get maximum power out of the driver), even one section of a 12AT7 should be able to produce enough driving power to push a 6L6 well into Class C. Once we know we can get the power we need, getting a particular driving *voltage* we need at that power level requires only an impedance transformation.

Finally, an Easter egg: Every amateur radio handbook and every tube manual I can think of significantly errs in characterizing tubes' Class-C operating conditions with the conventional phrase "RF Power Amplifier and Oscillator" (or its equivalent). An active device's operating conditions *cannot* be the same for amplifier and oscillator service because *an oscillator supplies its own driving power and an amplifier doesn't.* This means, for one thing, that an oscillator cannot be as efficient as an amplifier; some of the RF energy it produces goes back to its input and doesn't make it to its output termination. Very importantly for those of us who like to fiddle with oscillators that feed antennas, it also means that matching network values appropriate for operation of a given device as an amplifier at a given plate voltage and current will differ greatly from the values necessary for optimum operation of the same device as an oscillator. Tuning the output of an oscillator for maximum output consistent with good keying is far more dynamic than tuning an amplifier because adjustments affect the stage's self-provided drive as well as its coupling to its load. As an early example of excellent experimental evidence of this, see Ross A. Hull, "Overhauling the Transmitter for 1929," *QST*, August 1928, pages 9-19.

73,

Dave Newkirk, W9VES
dpnewkirk@home.com
** want list: R-648/ARR-41 **

End of BOATANCHORS Digest 2203
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